

PROVISIONAL SUNSPOT RELATIVE NUMBERS FOR THE FIRST HALF OF 1926

(Reprint from A. Wolfer, in *Meteorologische Zeitschrift*, April and July, 1926)

1926	Jan.	Feb.	Mar.	Apr.	May	June	1926	Jan.	Feb.	Mar.	Apr.	May	June
1	93			35	62	62	18		85	70	63	71	52
2		42	68	30	53	73	19			69	75	80	50
3	60	38	103	29	56	45?	20		67	46	58	63	52
4	37	41	103	29	68		21	103	59	38	41	75	44
5		34	119	22	86	80	22		41		35	67	37
6	56	29		23	53?		23	102	48		14?	40	52
7		52	35	100	30	74	24		49	35	14	27	55
8	76	44		27	102	86	25	124	64	37	16	31	
9	90		82	49	92	92	26			45		22	86
10	92		63	29	88	88	27	78	53	45?	14	23	88
11	84	99	47	34	93	94	28	40?	17?	19	43	99	
12	69	97?		37	89	62	29			30	41	54	106
13	57	142	45	58		75	30		48	31	39	52	109
14	55	150	58	71	60?	80	31	21				50	
15		162	89	65	86	57							
16			107	69	84	65	Means	71.6	69.0	63.6	39.1	63.6	71.6
17	94		79	69	65?	48							

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A RELATION BETWEEN HIGH RATES OF EVAPORATION AND WESTERN YELLOW TOMATO BLIGHT

In *Phytopathology* for August, 1925, Mr. Michael Shapovalov presents the results of an investigation into this subject. The following excerpts embody the conclusions reached:

In the case of western yellow tomato blight, a certain seasonal march of evaporation means a definite progress of blight in the same season. This disease causes serious annual losses to the growers over a large territory extending west of the Rocky Mountains to the Pacific coast and from British Columbia to the west coast of Mexico, but the actual annual damage fluctuates according to seasonal conditions. The summer of 1924 was marked by a particularly severe outbreak of western blight in a number of widely separated regions of the West and for this reason is especially interesting. This outbreak correlates with an unusually high evaporation in all those sections in which it occurred. * * * The rate of evaporation in 1924 was in every case above the average of a number of preceding years. * * * The amount of the disease in California varied from practically nothing in humid regions near the coast to nearly 100 per cent in localities with a high rate of evaporation. * * *

The most striking correlation between the amount of blight and the rate of evaporation was observed on the experimental plots at Shafter, Calif., and at Riverside, Calif., where counts of blighted plants were made throughout the season. The disease developed slowly and in very small amounts with the lowest evaporation curve at Riverside in 1923. It was more severe in 1924 when the evaporation was higher, but the most serious attack and in much shorter time developed with the highest rate of evaporation at Shafter in 1924.

The comparison of the percentages of blight at Riverside and at Shafter in 1924 indicates that the rate of evaporation is not only concomitant with the severity of blight in different seasons in the same locality, but also correlates with its geographical distribution. * * *

Blight areas during the principal blight period seem to have the average monthly humidity below 35 per cent, while nonblight areas about or above 50 per cent. The extremes for each group are to be found in the San Joaquin Valley for the former, and near Vancouver and San Diego for the latter. High evaporation is not only attendant on, but also foreruns severe spells of blight, especially at the outset of the season. * * * Detailed weekly observations (at both Riverside and Shafter in 1924) from the time the plants were set out in the field show very distinctly that the first serious waves of the disease were preceded by marked rises in the rate of evaporation.

METEOROLOGICAL SUMMARY FOR SOUTHERN SOUTH AMERICA, JUNE, 1926

By J. BUSTOS NAVARRETE, Director

[Observatorio del Salto, Santiago, Chile]

The month of June was the rainiest recorded in the central zone of Chile since the year 1873 to date. In the comparative table herewith are given the amounts of precipitation for the very rainy Junes since 1873 at

Santiago. In the other years the June rainfall was less than 100 millimeters.

Year	Milli-meters	Inches	Year	Milli-meters	Inches	Year	Milli-meters	Inches
1880	234.6	9.23	1899	235.4	9.27	1912	124.5	4.90
1887	159.8	6.29	1900	130.3	5.25	1914	205.5	8.09
1888	127.0	5.00	1901	106.7	4.31	1919	139.5	5.49
1891	149.3	5.88	1902	150.4	6.08	1922	215.8	8.49
1898	243.0	9.57	1905	186.0	7.32	1926	442.4	17.40

The month was characterized by very active atmospheric circulation. Between the 3d and 5th a large depression affected the country between Coquimbo and Chiloe, with violent winds and rains. The maximum precipitation in 24 hours was observed on the 5th at Talca, 53 mm. From the 6th to the 8th there was a temporary calm.

On the 9th an enormous depression appeared in the west. On the 10th the storm broke over the whole central zone, affecting mostly the port of Valparaiso. Precipitation varied between 20 and 30 mm. On the 11th it was again calm.

On the 12th another depression affected the southern zone of Chile. It rained in torrents. At Valdivia was observed the maximum precipitation in 24 hours, 137.8 mm. This caused high river stages and floods. Weather from the 13th to 15th was unsettled.

On the 16th a large depression appeared off the central zone of Chile, and between the 17th and 20th there developed a period of general bad weather, with violent winds and torrential rains. Floods occurred in the central zone and rivers were out of their banks. At Santiago the maximum precipitation for 24 hours (on the 18th) was more than 70 mm.

Between the 21st and 24th there was a stationary depression off Punta Tumbes, which caused renewed bad weather with rains between Aconcagua and Valdivia. Maximum precipitation in 24 hours was 73 mm. on the 23rd at Punta Tumbes. On the 24th the depression filled up, in harmony with the laws of Guilbert.

The 25th was fine, and the 26th cloudy with a cold wave.

From the 27th to the 30th another enormous depression affected the country, developing a new period of bad weather. At Punta Tumbes the wind velocity exceeded 1,700 m/m (63 m/h), and there were heavy breaking seas. It rained in torrents from Coquimbo to Chiloe. There was a general rise of the rivers from Aconcagua to Maullin, and renewed floods.

To summarize, the month of June, 1926, was the rainiest and stormiest which has been recorded in Chile since the beginning of meteorological observations.—*Transl. B. M. V.*

METEOROLOGICAL SUMMARY FOR BRAZIL, MAY AND JUNE, 1926

By FRANCISCO SOUZA, Acting Director

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May.—The atmospheric circulation in the lower strata remained abnormal during the month; the continental depression was very active, as were also those of high latitudes.

The anticyclones which invaded the southern part of the country moved less directly from south to north than usual, whence the fact that the temperatures were more moderate than those of the previous month.